

Native Plant and Wildflower Society

NEWS

Volume III Number 2

May 1996

Of Lupines, Karner Blues, and Ants

by Paul Hammond

I think we sometimes forget the intricacies of nature. Plants rely on animals for pollination, seed dispersal, and seed germination. Animals rely on plants for sustenance, shelter and shade. These dependencies are not well known, and I feel the following illustration is timely.

Wild or sundial lupine, *Lupinus perennis*, is a small, widely-distributed member of the Legume family, found from Minnesota to New Hampshire, south to Florida and the Gulf of Mexico. It prefers the well-drained, sandy soils of dunes, sand prairies, oak savannas, and pine barrens. In Indiana, it is found largely in the Gary and Hammond areas, with scattered populations throughout other parts of northern and central Indiana. The flower grows about knee-high, and has stunning blue flowers (occasionally white or pink) in late May or early June, and sporadically throughout early summer. The pinwheel-shaped leaves are typically hairy along the margins. After a light rain or heavy dew, the droplets of water trapped by the hairs sparkle, and give the effect of a ring of watery jewels.

Caterpillars of the federally-endangered Karner Blue butterfly *Lycaeides melissa samuelis* feed only on wild lupine. In the past, populations of the butterflies in the thousands existed at some sites. But with habitat destruction, suppression of natural fires, and the increased shade due to natural forest succession, the lupines have declined and the populations have become fragmented.

Karner Blue populations have declined rapidly in the last 20 years. The Ontario population has become extinct. The pine

bush area near Albany, New York, has seen drastic reductions. Many surviving populations are small, and exist precariously along roadsides, power lines, and ditches. It is estimated that less than ten areas have populations large enough for long-term viability. One site is the Indiana Dunes National Lakeshore, where hundreds of the butterflies and the lupines still exist in pristine habitat.

Where do the ants come in? It was recently discovered that larvae of Karner Blues secrete a "nectar" or sweet substance, which is much prized by the ants. In "tending" the larvae to collect the nectar, the ants may, directly or indirectly, be helping to protect them from predators. The complete role played by ants in larvae survival is not known, as there have also been instances of the ants preying upon the larvae.

Research on the Karner Blue problem has approached a frenzied pace. In addition to DNR scientists, university researchers such as Robert Dirig, John Shuey, Catherine Bleeker and Cynthia Lane are investigating various aspects of the prob-

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lem, and it is hoped the butterfly can be saved from extinction. But is it already too late? Karner Blues are still mysteriously declining, even on sites with large numbers of lupines. Your help is needed! If you would like to try raising wild lupines in your garden, under a range of conditions, I have available some seed from commercial restoration companies. The seed is not from Indiana, but the flowers are a native species.

Volunteer for Karner Blue or wild lupine counts. Limit your use of herbicides and pesticides. Butterflies are a bonus for gardeners, but the less-visible caterpillars are often blamed for plant damage. Perhaps the caterpillars eating your phlox are actually swallowtail larvae. I like to accept the bonus of bees, butterflies and hummingbirds in exchange for the chewed leaves, leafminers, and other "imperfections" of my plants.

For further information, call
Paul Hammond at 317-495-6467,

or write to him at
#518, Young Grad House
West Lafayette, IN 47906.

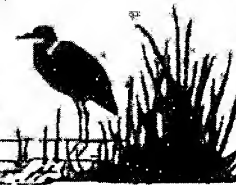
Hammond is a graduate student at Purdue University. The information in this article is from personal experience and "Karner Blue Butterfly: A Symbol of a Vanishing Landscape," published by the University of Minnesota Press.

Drawing of Karner Blue Butterfly by Chris Carlson, a charter INPAWS member and former editor of this newsletter. She is a free-lance writer and illustrator whose Broad Ripple (Indianapolis) business, Creative Ink, provides a variety of publications services.

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Indiana Native Plant and Wildflower Society Newsletter

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Published quarterly by the Indiana Native Plant and Wildflower Society for members.

The Mission of the Indiana Native Plant and Wildflower Society is to promote the appreciation, preservation, conservation, utilization and scientific study of the flora native to Indiana and to educate the public about the values, beauty, diversity and environmental importance of indigenous vegetation.

Officers 1996-1997

President	Carolyn Harstad	(317) 257-9452
Vice President	Kevin Tungesvick	(317) 354-2775
Corresponding Secretary	Gil Daniels	(317) 251-7343
Recording Secretary	Becky Dolan	(317) 940-9413 (w)
Treasurer	Jean Viator	(317) 823-1542

Newsletter Committee

Editor	Dan Anderson	(317) 849-3105
Co-Editor/Design/Layout	Arne Wilson	(812) 342-6838
Technical Editor	Gil Daniels	(317) 251-7343
Mailing	Ruth Ann Ingraham	(317) 253-3863
Contributing Editors	Bill Brink	(317) 255-0166
	Becky Dolan	(317) 940-9413 (w)
	Carolyn Harstad	(317) 257-9452
	Sue Nord	(317) 782-0763
	Barb Kaczorowski	(317) 877-0850

Submission of articles

Information for the newsletter is supplied by Society members and others interested in sharing information about Indiana native plants. Articles or drawings should be sent to the Editor, Dan Anderson, 7412 Graham Road, Indianapolis, IN 46250.

Committee Chairs

Annual Meeting	Bill Brink	(317) 255-0166
Auction	Lynn Jenkins	(317) 769-3456
Communications	Hilary Cox	(317) 272-4938
Fundraising	Bernadette Traeger	(317) 933-9238
Governance	Janice Glimm-Lacy	(317) 293-1207
Historian	Reta Rutledge	(317) 784-2927
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Membership	Ruth Ann Ingraham	(317) 253-3863
Native Plant Education	Sue Nord	(317) 782-0763
Native Plant Rescue	Ted Harris	(317) 362-1509
	Don Miller	(317) 327-7416
Newsletter	Dan Anderson	(317) 849-3105
Programs/Field Trips	Kevin Tungesvick	(317) 354-2775
Publications	Anne Wilson	(812) 342-6838
Publicity	Margo Jaqua	(317) 253-4367
Speakers Bureau	Colletta Kosiba	(317) 852-5973
Muncie chapter	Kevin Tungesvick	(317) 354-2775
Past President	Jeffrey Maddox	(317) 253-0659

President's Message

by Carolyn Harstad

A new INPAWS member wrote to me last month questioning why I would include, as part of my dream for Indiana (see the President's Message in the March issue of this newsletter) legislation requiring developers, builders, and landscapers to preserve a given number of native trees. By tradition, Americans chafe at regulations limiting freedom of action, but there are instances when regulations are necessary and desirable. I would like to explain why I think this kind of legislation should be considered.

I am constantly amazed and dismayed to see builders and developers bulldoze and clear wooded areas in total disregard for the land. Within the last ten days I witnessed the clearing of two huge tracts of land in preparation for development. Giant bulldozers groaned and clanked as they toiled their way across the newly denuded landscapes. As work progressed, piles of stumps, logs and branches grew along the sides of the properties, waiting to be carted off to the dump. This is the way the majority of development takes place because it is allegedly "too much trouble, too costly, too labor intensive," etc. to tag existing trees of a certain trunk diameter, to protect roots from soil compaction by roping off areas, or to plan around existing trees. It takes time to take these precautions and time is money. Granted, it is unfair to lump all builders and developers into this category. Some do all in their power to preserve the integrity of the land, but this group is small.

My daughter and her husband recently built a home in Lakeville, Minnesota, a suburb of

Minneapolis. I spoke with the forester there about Minnesota's tree preservation guidelines and learned that developers are required to hire a forester or a landscape architect to inventory existing trees and tag desirable specimens (six inches or more in diameter at breast height).

Undesirable, short-lived, "trash" trees are marked for removal. Plastic fencing is placed at the drip lines of specimen trees and around groups of trees. Developers are required to post bonds of \$1000 per building lot. Building inspectors check sites regularly to ensure that construction is up to code, that tagged specimen trees are being protected, and that no heavy equipment is driven within the drip line area compacting the soil. It is illegal to put fill dirt within the fenced areas. Obviously the configuration of the land and the building plan sometimes make it impossible to save a given tree. For each tree thus destroyed, the property owner is required to plant two balled and burlapped trees of at least three inches in diameter.

We are responsible for the health of our planet, and for preserving and protecting our natural resources. Existing trees are part of our natural resources. Trees are esthetically pleasing, providing shade and protection, reducing costs for air conditioning, and for heating. Newly built subdivisions in Lakeville, Minnesota, "have character" even while they are being developed. They do not resemble the "nude, plucked chicken" look of the typical development. Homes on wooded lots command higher prices than those on lots with only a token tree. (Several INPAWS members recently conducted a wildflower plant rescue on wooded lots in

Indianapolis selling for \$400,000 each!) Developers may gain an edge over competitors by preserving trees, working with the lay of the land, and even preserving wildflowers.

In a recent conservation lecture, I learned that the highest incidence of point soil erosion is where there is development. We are losing soil, as well as wildlife habitat, at an unbelievable rate. We can't always take the easiest and the cheapest routes. For a tree to reach a height of 40 to 60 feet and higher takes many decades. That same tree can be felled in less than one hour. Saving existing specimen trees does not preclude planting other trees or executing personal landscape plans.

Aldo Leopold stated, "The real substance of conservation lies not in the physical projects of the government but in the mental processes of its citizens." Unfortunately, we know that things don't usually work from the top down. That is why I believe that we need to take our INPAWS mission statement seriously . . . *"to promote the appreciation, preservation, conservation, utilization and scientific study of the flora native to Indiana and to educate the public about the values, beauty, diversity and environmental importance of indigenous vegetation."*

We have the power to make changes, but we must communicate, cooperate, and work together to make a difference in the lives of present and future generations of Hoosiers.

PURPLE LOOSESTRIFE

an Unwelcome Wildflower by Sue Nord

The European perennial purple loosestrife (*Lythrum salicaria*) is widely distributed in gardens of the northern United States, and has escaped from many of these gardens to become naturalized as well. Its showy magenta blooms are visible from a great distance. However, the plant's "ugly strategy" is described in a Minnesota Department of Natural Resources brochure. The weedy tendencies of purple loosestrife become apparent in wild, wetland situations. "When the conditions are right, a small isolated group of loosestrife plants can spread and cover a marsh in only one growing season." Besides seed propagation, "the shallow woody root system forms a dense mat, making adult plants difficult to pull. If the entire root is not taken, it will resprout. If plants are mowed, the stem pieces will actually send out new roots, eventually become anchored, and form new colonies."

Why is the proliferation of purple loosestrife a problem? First, the plant "aggressively crowds out" native vegetation in wetlands and "is of no value for wildlife itself. For example, songbirds do not make use of the small hard seed. Muskrats require cattails to build their homes, and they show preference for cattails over purple loosestrife for food. Waterfowl, especially ducks, shun wetlands that have become dominated by loosestrife. In addition, overall waterfowl production is decreased as habitat is eliminated. Finally, the plant's growth is generally too compact to offer cover, and cover may be as crucial to wildlife as is food."

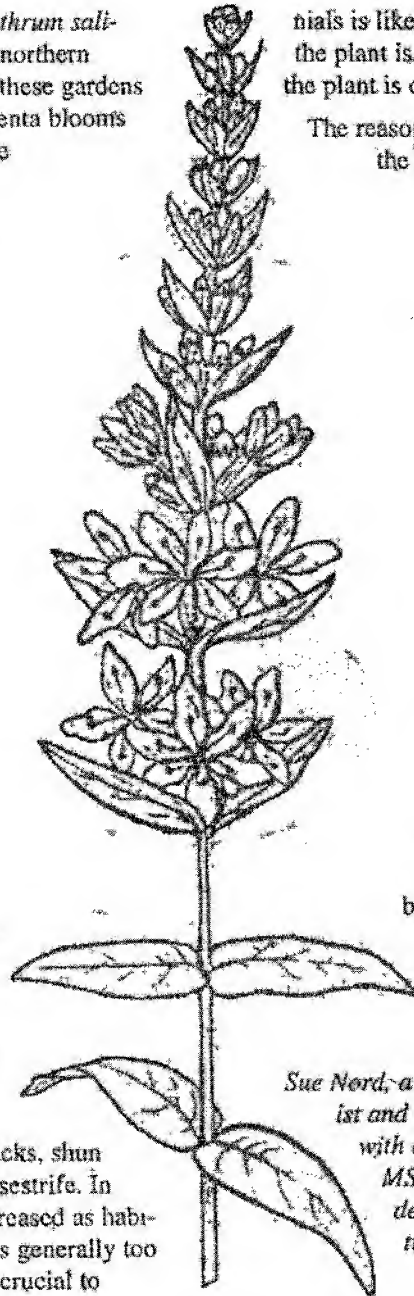
Perhaps you have noticed that purple loosestrife has not been offered for sale in reputable garden centers and in catalogs in recent years. The perennial had long been a staple in garden design because of its attractive form, ease of cultivation, and long blooming period. Any gardening book devoted to perennials is likely to feature the flower. The problem with the plant is not with normal garden use, so how is it that the plant is difficult to find in commerce?

The reason for its unavailability is that, according to the Indiana noxious weed codes, "a person may not sell, offer for sale, give away, plant, or otherwise distribute purple loosestrife (*Lythrum salicaria*) seeds or plants in Indiana." The same code prohibits the growing of two other plant scourges, Canada thistle and multiflora rose.

There are exceptions to the code, for horticultural varieties of loosestrife demonstrated "not to be a threat to the environment." There are several cultivars which might fit into this category. The most popular are part of the Morden hybrid series from Morden Agriculture Research Station in Canada.

These are reported to be pollen-free and therefore sterile. In fact, it is known that they are mostly male sterile, and can be cross-pollinated by a bee making the rounds of all nearby *Lythrum*. You may find these cultivars legally for sale in Indiana, but perhaps you could forego these plants for something that is not a threat to our environment.

Sue Nord, a charter member of INPAWS, is a horticulturist and gardener at the Indianapolis Museum of Art, with a BS from Delaware Valley College and an MS from Ohio State. She claims her home garden is a disaster because she spends all her time at IMA.



This article on loosestrife is the second in a series featuring exotic invasives. (See story on garlic mustard in the March 1996 issue). If you have a tried-and-true method of eradicating these and other pest plants such as honeysuckle and multiflora rose, send it to the editor, Dan Anderson, 7412 Graham Road, Indianapolis, IN 46250. We will share your techniques in future issues of this newsletter.

INPAWS COMING EVENTS

Saturday, June 8

Shades State Park, 1 PM. Fern identification hike led by Mike Homoya. Good physical condition is a must, as climbing and scrambling will be required!

Sunday, July 14

Joint program with Oakhurst Chapter, Minnetrista Center, Muncie, 1 PM. Slide presentation and walking tour of Oakhurst Gardens, with focus on the composite family of native plants.

Saturday and Sunday, August 3 and 4

OVERNIGHT TRIP TO THE INDIANA DUNES AREA

We have rented a bus which will depart at
8 AM from the

Purdue Extension Service
9245 N. Meridian Street, Indianapolis
(5th/3rd Bank Building)

We ask that all coming from south or central Indiana ride the bus due to extremely limited parking at most of the locations we will visit. If you are from the north, and would like to meet us there, call Kevin Tungsveick to make arrangements.

Reservations for the bus must be made by Saturday, June 15. Bus seating is limited to 45. The fee of \$45 includes round-trip bus fare, a buffet dinner at the Indiana Dunes Hotel on Saturday evening, and snacks on the bus. Please call

Kevin Tungsveick • 317-354-2775.

(No refunds after June 30 unless there is a waiting list.)

• See page 8 for more information about this trip •

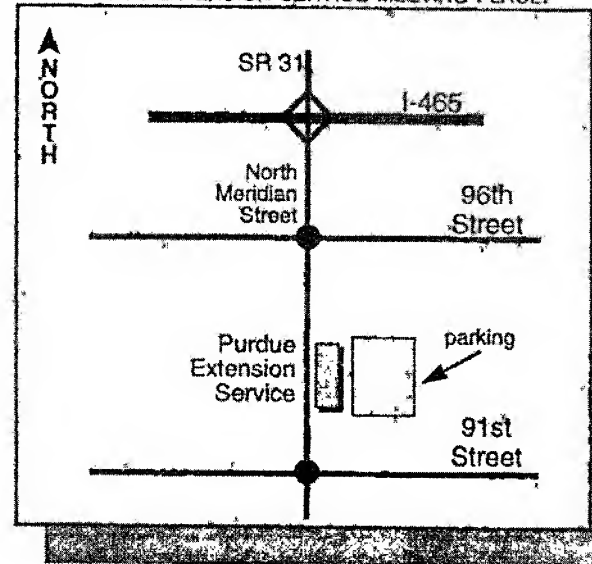
On **Saturday, August 3**, Gerould Wilhelm, co-author of *Plants of the Chicago Region*, will lead us through the following sites:

Biesecker Prairie, a rolling mesic prairie full of colorful composites;

Hoosier Prairie, a large complex of prairie, oak savanna, and wetlands;

Gibson Woods, a diverse example of dune and swale topography.

PURDUE EXTENSION SERVICE MEETING PLACE:



We have also reserved a block of rooms at the Indiana Dunes Hotel.

Call 219-762-5546

to reserve your room by June 30.

On **Sunday, August 4**, Noel Pavlovic, Plant Ecologist with the National Biological Service, will interpret the following sites:
Dunes and wetlands near Cowles Bog in Dunes National Lakeshore;
Pinhook Bog, the finest sphagnum bog in Indiana, featuring carnivorous plants and orange fringed orchids.

Saturday, September 14

Auction and sale of native plants, Holliday House, Holliday Park, Indianapolis

• Please note time change to **11 AM**

Saturday, October 19

Fall foliage and tree identification, 2 PM, Hoosier National Forest, Jackson County, hike led by Chip Weber

Saturday, November 9

Annual Meeting

Saturday, December 7

Annual Christmas Party, 7 PM,
Carolyn and Peter Harstad's

MULTIFLORAE

Indiana Conservation Afield, a new quarterly magazine for Indiana conservation officers and the outdoor-minded public, will begin appearing in sporting goods outlets, marinas, gun shops, and bait and tackle retailers, sometime in late spring. It will feature outdoor recreation and help promote the prudent use of natural resources while enjoying the out-of-doors. There will be articles on hunting, fishing, wild edible foods, outdoor photography, boating, camping, and many other outdoor activities.

Well-known outdoor writer Jack Spaulding has been chosen as editor of the new publication. Although he's not an INPAWS member yet, his daughter is, and through her he became familiar with our publication, and requested a column on edible plants to be a feature of the new magazine.

For those wishing to receive *Indiana Conservation Afield* at home, subscriptions are available at the low cost of \$6.00. Checks should be sent to *Indiana Conservation Afield*, Circulation Dept., 5287 West 1000 South, Milroy, IN 46156. Any profits from the magazine will go to benefit the Indiana Conservation Officers' Association, an Indiana not-for-profit organization. Good luck, Jack!!!

• BUTLER NATURE WALKS •

Dr. Becky Dolan will lead the following nature walks at Butler University. All will begin at noon on the following Tuesdays, and will last for about 50 minutes. Meet behind Gallahue Hall near the greenhouse. There is no charge, and all are welcome.

- May 14 Spring Wildflowers III
- June 11 Early Summer in the Woods
- July 9 The Butler Prairie
- August 13 The Butler Prairie

The purchase of 4,036 acres of sensitive natural areas for parks, nature preserves, and habitat preservation and restoration has been made possible by the sale of more than 75,000 environmental license plates, Governor Bayh's office has announced. In addition to the license plate funds, the Indiana General Assembly contributed \$5 million to the Heritage Trust for purchases of property. One of the larger tracts was 880 acres for the Grand Kankakee Marsh in Lake County. A smaller purchase of 27 acres adjoins the proposed Fort Harrison State Park, and protects a large blue heron rookery. Of the \$35 additional cost of the environmental plates, \$25 goes to the Indiana Heritage Trust and the balance to the Bureau of Motor Vehicles for additional processing and distribution costs.

The Marion County 4-H Wildflower Project

has been expanded to two years, and a third will be developed later in the year. Member **Teresa Talarek**, from Vincennes, is trying to start one in Knox County. Let's make this a statewide project, and get our exhibits in the State Fair. Dan Anderson or Sue Nord will be glad to send a packet of information which has been developed so far.

Dan • 317-849-3105 Sue • 317-782-0763

The INPAWS Speakers Bureau

has been active the last few months, reports Colletta Kosiba, Speakers Bureau Chairperson. Hilary Cox gave a talk on native plants at the Hendricks County Master Gardeners Lawn and Garden Show. David Hicks offered a similar talk to the Lamberlost Girl Scouts in Fort Wayne. Carolyn Harstad presented *Native Plants in Landscaping* at the Science and Technology Festival, Indianapolis. Colletta Kosiba presented *Spring Wildflowers* to the Hendricks County Master Gardeners, led a tour of her woodlands for the *All Thumbs Garden Club* of Indianapolis, and led a walk at Blandford Woods in Danville for the *Backyard Tree Farmers*. Dan and Sophia Anderson presented *Using Native Plants in your Garden* to the *Mud Creek Garden Club*, and presented *Spring Wild Flowers* to the *Nature Study Club* of Patricksburg School in Owen County. They also presented a variety of specimens to the club for the school Nature Trail, and supervised their planting.

Our audiences are very receptive to the information on native plants, and leave with an eagerness to try using native plants in their own gardens.

Volunteers are still needed, as there is a growing demand for speakers and presentations on native plants and their uses. If you have not yet offered your services, please call Colletta, even if you can give a program only a few times a year. Likewise, if you know of an organization needing one of our speakers, please let her know, and she'll try to find one meeting their needs. Enjoy our spring wildflowers, and help share them with others!

Colletta Kosiba • 317-852-5973

OOPS - the grafting workshop,

hosted by Charles and Marilyn Spurgeon, was listed in our last newsletter as being on March 19th instead of the correct May 19th. We apologize for any inconvenience this might have caused, yet I suspect that not many people would have braved the thirteen or so inches of snow that descended on us that day.

American Chestnut Foundation membership director Tammy Carpenter recently reported that there is an Indiana chapter of the organization, headed by Garland Hicks, Professor of Biology, Valparaiso University, Valparaiso, IN 46383. If any INPAWS members are interested in helping restore the American chestnut to its rightful place in our forests, there is a special introductory membership rate of \$25.00 (regularly \$40.00).

Lightning Bug proposed as state insect.

A campaign to have the firefly, *Lecontea angulata*, declared the official state insect is being led by Tom Turpin, a Purdue entomologist. Legislation will be introduced next year on behalf of the gardener-friendly, glowing beetle, whose larvae feed on slugs and snails.

The lightning bug was named in the 1800's by Indiana's Thomas Say, a New Harmony scientist considered to be the father of North American entomology. Few states east of the Mississippi River have more dramatic firefly displays than those in Indiana.

Last month Governor Bayh signed legislation into law that made the Wabash River the official state river; the cardinal was declared the state bird by the 1993 General Assembly; and the tulip tree was selected as the state's official tree in 1931.

How and when did the cultivated peony become the state flower? Would a native flower be more fitting as an emblem of Indiana? Should INPAWS take up this issue?

Send your opinion to the Editor, Dan Anderson, 7412 Graham Road, Indianapolis, IN 46250 or email Anne Wilson, jwils00@mail.cpbx.net.

The first plant rescue of 1996 took place on April 6, at Raymond Park School, in the southeastern part of Marion County. A hiking trail has been marked out, and will be covered with wood chips. Braving the icy temperatures were Plant Rescue Committee Co-Chair Don Miller, Rolland Kontak, Colletta Kosiba, Chi Lin and Dan and Sophia Anderson. Although many of the plants were barely up, we rescued some nice specimens of cut-leaved toothwort, spring beauty, Dutchman's breeches and trillium. Thanks to all who came out!

HOW DID YOU FIRST HEAR ABOUT INPAWS?

Send your story to the Editor, Dan Anderson, 7412 Graham Road, Indianapolis, IN 46250 317-849-3105 or email Anne Wilson at jwils00@mail.cpbx.net

The Spring Garden Clinic, held in late March at Shortridge School in Indianapolis, was attended by several INPAWS members: Jim Story gave tips on raising gourds, and showed the interested audience some of his prized specimens, and some of the many art objects and implements made from gourds. Jim Akers, from Purdue, talked on using native plants and trees to attract wildlife to your property. Dan and Sophia Anderson served as session moderators. Many of the 95 attendees were interested in INPAWS, and more than twenty membership applications were given out.

What's Blooming?

Many INPAWS members enjoyed the beautiful day of Sunday, April 21, touring several members' gardens as well as Holliday Park, Indianapolis, our first stop, where the marsh marigolds (*Caltha palustris*) were in full bloom. At Carolyn Harstad's, on the north side of Indianapolis, we saw how she has transformed what had been a suburban yard of only large trees and sparse grass into a woodland wonderland, with waves of early spring wildflowers. Next, we drove to the home of Bob and Lou Rice, called *Left Gate Farm*, north of Eagle Creek Park on the north-west side of Indianapolis. Bob greeted us with lists of the 250 wildflowers on the property, and the 29 flowers currently in bloom, as well as a list of birds observed there from 1938 to 1996. The extensive property, which comprises steep woods, creeks, and a recently planted tall-grass prairie, was replete, especially with Trout Lilies (*Erythronium americanum*) thick with bloom, Rue Anemones (*Anemone thalictrifolia*), Dutchman's Breeches (*Dicentra cucullaria*), Twinleaf (*Jeffersonia diphylla*), Hispid Buttercup (*Ranunculus hispidus*) and just about every early spring flower you could think of. His lists make interesting, informative reading!

At Juanita Graham's we were treated to an abundant display of woodland wildflowers lovingly cared for and cultivated for more than 40 years.

Does spring bloom seem later than usual this year? Are some plants doing very well while others are not? For example, in south-central Indiana the rue anemones are large and abundant, while many redbud trees were devastated by the ten inches of heavy, wet snow that fell on the first day of spring. Drop us a line with your observations on *what's blooming when* in your part of the state for the next issue of INPAWS News.

Dan Anderson, 7412 Graham Road, Indianapolis, IN 46250
Anne Wilson, email: jwils00@mail.cpbx.net

The Importance of Burning, the topic of the Sunday, March 23 INPAWS meeting, held at Gallahue Hall on the Butler campus, was attended by about fifty members and guests. Ellen Jacquart and Lee Casebere presented excellent programs relating to the use of controlled burning in the maintenance of native plant communities, including many informative slides. Thanks to both of you for helping enlighten us about an area unfamiliar to most of us!

OVERNIGHT FIELD TRIP TO THE INDIANA DUNES AREA, AUGUST 3 AND 4.

by Kevin Tunesvick

This highlight of the 1996 INPAWS field trip season will include visits to many of the best remaining natural areas in northwest Indiana, known as one of the most botanically diverse areas in the entire nation. Only three other national parks contain more species of plants than Indiana Dunes National Lakeshore, a fact made even more amazing by the tiny size of IDNL relative to other national parks.

The three sites that we will visit on Saturday represent many different plant communities within the prairie biome. Gerould Wilhelm, our guide, is perhaps the most eloquent advocate of the tallgrass prairie. His knowledge of the plant taxonomy and ecology of this area is unexcelled. Bieseker Prairie sits on rolling moraine terrain. A wide variety of prairie wildflowers, particularly composites, will be in bloom, as well as some species rare in Indiana. Two particularly interesting and abundant species at this site are Prairie Dock and Rattlesnake Master.

Hoosier Prairie is actually a complex of several diverse plant communities, including sand prairie, black oak savan-

na, and marshes. This incredible site harbors more than 350 species of native plants. It is commonly regarded as one of the most significant natural areas in the state of Indiana. This mosaic of habitats, surrounded by residential and industrial areas, is carefully managed through prescribed burning to maintain its high diversity.

The dune and swale topography of Gibson Woods creates a variety of microclimates, permitting rapid transition from sand prairie and savanna to wet forests and buttonbush swamps. Rare flora and fauna abound, including several orchids and the Karner Blue Butterfly. This site will be the final stop on Saturday, after which we will head to the Indiana Dunes Hotel in Portage, where we will have our evening meal and have the opportunity to enjoy the swimming pool and hot tub.

After a refreshing night's sleep, we will board the bus and head to the Cowles Bog area of Indiana Dunes National Lakeshore. Noel Pavlovic, plant ecologist with the National Biological Service, will meet us to lead Sunday's hikes. In the Cowles Bog area we will see swamp forests containing yellow and paper birch near the southern edge

of their range. Under the birch, lush stands of cinnamon fern add to the cool northern feel of this forest. As we ascend the old dunes, we will see the transition into a much drier oak forest and savanna. Under the oaks, a ground cover of lowbush blueberry is frequently present. Finally, we will reach the more barren foredunes where unusual plants such as prickly pear cactus have adapted to the droughty sands.

Following lunch, we journey to our final stop, Pinhook Bog. This site represents the finest example of a sphagnum bog in Indiana. Carnivorous plants such as Pitcher Plant and sundews abound in the nutrient-poor bog. Tamarack trees dot the floating sphagnum mat. The delicate Orange-Fringed Orchid should be in bloom along the boardwalk in early August, adding a strikingly beautiful final touch to our dunes tour.

Please join us for a weekend of rare and spectacular natural areas, fascinating plants, expert ecological interpretation, and camaraderie with fellow INPAWS members.

See page 5 for details.

Coming to Terms

There are many botanical names conveying the idea *hairy*. Are there as many ways to describe other concepts such as *native*, *naturalized*, or *wild*? Do we all agree on what a wildflower is? We will be exploring topics of terminology in coming articles. Give us your opinion.

• Dan Anderson, 7412 Graham Road, Indianapolis, IN 46250 • Anne Wilson, jwils00@mail.cpbx.net

acanthocomus . . . spiny-haired
acrotriche hairy-lipped
argyocomus silver-haired
aristosus bearded
auricomus golden-haired
barbatus bearded
brachytrichus short-haired
calocomus beautiful-haired
candidissimus white-hairy
capillaris hair-like
capilliformis hair-shaped
comatus with hair

flavicomus yellow-haired
hirsutissimus very hairy
hirsutulus somewhat hairy
hirsutus hairy
hirtellus somewhat hairy
hirtiflorus hairy-flowered
hirtipes hairy-stalked
hirtus hairy
leucotriche white-haired
longicomus long-haired
mollis soft-hairy
mollissimus very soft-hairy

pilifera bearing soft hairs
pilosiusculus slightly pilose
pilosus with soft hairs
ramentaceus bearing a hair-like covering
subhirtellus somewhat hairy
trichocalyx hairy calyx
trichocarpus hairy fruited
trichophyllus hairy-leaved
trichosanthus hairy-flowered
trichospermus hairy-seeded
villosus soft-hairy

MEAD'S MILKWEED

(from the January 1995 issue of *The American Gardener*)

Mead's milkweed, *Asclepias meadii*, was once found throughout the Midwestern plains from Kansas to Indiana; in association with other prairie plants such as Indian Grass, Big Bluestem and Prairie Dropseed. Plowing of large tracts of land for agricultural purposes has greatly contributed to the decline of the species, which has been reduced to 130 known populations, mostly in hay meadows, in pioneer cemeteries, and along railroad rights-of-way. The species is considered threatened by the federal government, and appears to be extinct in Indiana and Wisconsin.

The plant may grow as tall as two feet, with arrow-shaped leaves, and a solitary, downward-pointing umbel of about twelve fragrant yellow-green flowers. Growth is slow, and less than ten percent of flowers produce seed pods, due to inbreeding. Most reproduction is due to cloning of new plants, which spread by means of rhizomes rather than seeds.



Robert Betz, formerly with Chicago's Northeastern University, has studied Mead's milkweed for decades, and along with associates at the Morton Arboretum, has gathered seeds from plants in various portions of its range in an attempt to obtain a genetically diverse population. The program has had some success, but it is possible that the breeding under carefully controlled conditions may result in a plant better adapted to a garden setting than survival in the wild.

Efforts have been made to restore the plant in a small number of carefully-selected sites in Indiana and Illinois, but setbacks have occurred, such as the theft of the entire planting from Illinois' Shawnee National Forest. Other planting sites have been kept secret, to prevent similar incidents.

It is possible that a few natural populations may still survive in Indiana, particularly in the northwest quarter of our state. If any INPAWS members are successful in finding *A. meadii*, please let your editor know, so we can notify the research team.

• Welcome to New Members •

Welcome to all of you who have joined INPAWS since early March, when our 1996 Yearbook went to press!

Martha Allis, Evagene Bond, Kenneth Collins, David and Pat Denny, Mary Gorrell, Marsha Ann Hutchins, Elaine Klein, Kristin Mailloux, Byron and Ginger Plexico, Peggy Trimpe, Greg and Linda Wilson, all of Indianapolis, Kathy Ann Calwell - North Salem, Jill Dodd - Noblesville, Candace Kaminsky - Middlebury, Gary Lane - Bloomington, Vicki Loveland - Spencer, David and Marion Miller - Wolf Lake, Sally Weeks - West Lafayette, and Regan Wilkinson - Muncie.

The following members have renewed, but unfortunately not in time to be listed in the 1996 Directory:

Roger Beckman - Bloomington, Caroline Brunner - Indpls, Marjorie Carmony - Manilla, Wayne and Susan Ebershoff-Coles - Danville, Tim Cordell - North Liberty, Nancy Duck - Indianapolis, Virginia Finch - Indpls, Brad and Nancy Grenard - Otterbein, Charles and Mary Swan Hagen - Bloomington, Barbara Harcourt - Milroy, Lewis Johnson - Martinsville, Karen and Paul Kofoszar - Lafayette, Dawn Kroh - Indpls, Ruth Kvaalen - West Lafayette, Paul MacMillan - Hanover, Tina Meeks - Indpls, Katherine Newkirk - Greencastle, Patricia Pizzo, Bloomington.

Margaret and Stephen Smith - Indpls, Brian Tunis - Lafayette, Alice Underwood - Indpls, and Russ Vernon - Albany.

We are pleased that our membership spans the state from the Ohio River in the south to the Michigan border in the north.

If you have friends or associates who share your interest in Indiana's native plants and wildflowers, and who would like to join INPAWS, lend them this newsletter, copy the membership application on the back page for them, or have them write or call me,

Ruth Ann Ingraham
Membership Chairman,
6106 Kingsley Drive
Indianapolis, IN 46220
317-253-3863.

The Greens of Summer

The months of May through July are probably the most productive for wild greens to be found in Indiana. Many don't come up until after May 1st, and by the time July 15th comes around, others have become full-grown, tough and stringy. Fortunately, most can be cooked and frozen, for enjoyment months afterward.

Most of us are familiar with the rank red stems and dark purple berries of **poke or poke-weed** (*Phytolacca americana*). This enterprising plant can be found along fencerows and in disturbed areas. I've often found it growing in profusion in forest clearings where a large tree has fallen or has been cut down. Although the roots, berries, and mature parts of the plant are mildly poisonous, the young shoots, when up to eight inches tall, make a delicious green, which was well known to our pioneer ancestors. Trim the shoots off at ground level and peel off any red which may be showing on the outside. Bring to a boil in water three-times, changing the water each time. Then cook until tender in water, chicken or meat stock (about 15-20 minutes). **WARNING:** Poke has a powerful laxative effect if the changes of water are insufficient!

Stinging nettle (*Urtica dioica*) is an unwelcome denizen of many woodland and marshy areas. The plant looks innocent enough, but brushing against its countless formic-acid-laden hairs will give the effect of countless tiny bee stings. Fortunately, the irritant will disappear during the cooking of this excellent green. If you have the courage to pick nettles, don a pair of good gloves, preferably ones having gauntlets to protect the wrists. If the plants are young, they may be cut at ground-level. For older plants, the growing tips can be picked, and forced through a strainer to remove any fibrous material. Add just enough water to cover, and simmer for 10-15 minutes until tender. Drain, then serve with butter or lemon dressing. **Wood-nettle** (*Laportea canadensis*) is also found in our area, also stings, and can be used in the same way as stinging nettle. It can be distinguished from the *Urticas* by having alternate, rather than opposite, leaves.

Jewelweed (*Impatiens spp.*) has long been known as a handy remedy for skin irritations such as insect bites and encounters with stinging nettles. (Mash up some of the stems or young

plants and rub on the affected area). However, it makes a passable green also. No changes of water are necessary - just pick some of the young plants, clean, and simmer in the minimum quantity of hot water until tender. Either the **pale jewelweed** (*I. pallida*) or the **spotted** (*I. capensis*) can be used.

Common milkweed (*Asclepias syriaca*) contains a mildly-poisonous milky sap which gives monarch butterflies their relative immunity from being eaten by hungry birds. The sap has a bitter taste, and must be removed during cooking. The young shoots may be picked until they are about six inches tall. Heat a quantity of water beforehand, and cook them for about 15 minutes, changing the water several times to remove the sap. We've found the shoots to be a little coarse, and prefer the unopened flower buds and young pods instead. I've eaten the buds raw, and have not noticed any bitter taste, but it's best to boil them for 3-5 minutes and serve as you would broccoli or string beans.

Almost anyone who has a garden will find **purslane** (*Portulaca oleracea*) spreading in low mats over the surface of the ground. This common weed is edible and tender, even when mature. Chop it into convenient-sized lengths and include in salads, or cook it for ten minutes in water and serve as a green. Because it

grows so low, a considerable amount of dirt and sand may adhere to the leaves, so it must be washed thoroughly before use.

Violets (*Viola spp.*) are not endangered species, certainly not in my lawn. Both the flowers and leaves can be picked and added to salads after cleaning. The taste is somewhat bland, so they can be mixed with stronger-tasting greens such as dandelion or chicory with good effect.

There are literally dozens of other plants which will give raw or cooked greens of qualities ranging from barely edible to gourmet ranking. The plants selected above are likely to be found by the forager, and are sufficiently common that their futures will not be endangered by picking for our use.

Dan Anderson is a charter member of INPAWS and editor of INPAWS News.



XERISCAPING TECHNIQUES FOR INDIANA

by Brett Woywood

Xeriscaping is a form of landscape design defined as the efficient use of water by proper selection and placement of plants. The word "xeriscape" is derived from the Greek *xeros*, meaning "dry." (This should not be confused with "Zeroscaping," a style characterized by the placement of a cactus or yucca in the middle of a yard covered with stones or black plastic).

Water conservation has not always been a concern of gardeners, so xeriscaping is a relatively new focus of horticulturists. In central Indiana, where the average yearly precipitation in rainfall or equivalent is forty inches, xeriscaping techniques may not appear necessary. However, one should keep in mind that the emphasis on xeriscaping is on the use of natural rainfall and restriction of additional irrigation, not on the complete absence of water.

There are four principles of xeriscaping: proper selection of plant specimens, appropriate placement of these plants, sensible turf areas, and efficient watering methods. Using these ideas as guides will reduce the need for added watering and better utilize the additional water required.

When choosing plants for a landscape, it is important to keep in mind the basic needs of the plant, besides what human need the plant will satisfy. Many people know the restrictions of winter hardiness, but few consider the summer temperatures the plant must withstand. Soil pH, natural rainfall, and microclimates (areas with water, sun, or temperature conditions different from those of the surrounding landscape) also affect the growth of a plant. For example, rhododendrons and azaleas do poorly in Indiana because of the cold winters, high soil pH, and hot summers. Many native plants such as purple coneflower (*Echinacea purpurea*), black-eyed Susan (*Rudbeckia sp.*), little bluestem grass (*Schizachyrium scoparium*) and northern red oak (*Quercus rubra*) should thrive in the average Indiana yard.

Closely linked to species selection is the location of the plant. Some plants are adapted to sunny areas, while others do better in the shade. Placing a specimen in its optimal light conditions will encourage healthy growth. Another suggestion is to group plants having similar moisture requirements. Shallow-

rooted plants, turf grasses, many annuals, and plants on hills and berms will have high water requirements. Evergreens have more moderate needs. Deeply-rooted plants, those in low areas, and those in areas of shade require the least amount of additional water.

A common misconception concerning xeriscaping is that grass lawns are not allowed. This is not necessarily true, particularly in central Indiana. It is the design of the grassy areas and the species of grass planted which determine how efficient the lawns are. The size of the yard is important - large lawns require more water and take longer to mow than small ones. Grassy areas closer to the house are more visually appealing and can help moderate temperatures more than those farther away. Accessibility also makes lawns more efficient: it is easier and safer to push a mower from a drive onto a lawn than it is to lift it to the top of a retaining wall. Also, water will run off a steep slope more rapidly than a moderate one. Different grasses require different amounts of water: Kentucky bluegrass has high requirements, fine fescue, moderate, and the native buffalograss low water needs.

If there hasn't been rain for two weeks, and plants are knocking at the door begging for water, it's time to irrigate. The turf areas of most homes can be watered with pop-up spray heads. Larger lawns are better served by rotor-type sprinklers. Trees and shrubs in planting beds can be watered by a few trickle or drip emitters placed within each root zone. For annuals and perennials, which are usually massed together in beds, bubblers or flood irrigation are recommended.

Properly designed and installed xeriscapes can be very attractive. Homeowners also obtain pleasure from knowing that their monthly water bills are lower and that they are more efficiently using a precious natural resource. Overall, xeriscaping is a very sensible landscaping method.

Brett Woywood is a graduate student studying landscape design at New Mexico State University, and a summer intern at the Indianapolis Museum of Art. This article was adapted from one which appeared in the IMA Garden News. Contributed by Sue Nord.

Eastern Native Plant Alliance

is sponsoring a conference

July 5-7, 1996.

at the University of Waterloo, Ontario, Canada, on

Maintaining Bioregional Diversity:

Starting With Your Own Backyard Landscape.

The cost is \$35.00 U.S. Reservations are limited to the first 100 applicants. For further information contact Lisa Weber, 519-885-1211, ext. 2072, or FAX 519-746-2031, or email hrc@fes.uwaterloo.ca.

Garlic Mustard Lookalikes!

At first glance, the following plants can be mistaken for the pesty biennial in their early-spring, low-rosette stage:

Golden Ragwort	(<i>Senecio aureus</i>)
Hispid Buttercup	(<i>Ranunculus hispidus</i>)
Kidneyleaf Buttercup	(<i>Ranunculus abortivus</i>)
Tall Bellflower	(<i>Campanula americana</i>)
Meadow Parsnip	(<i>Thaspium trifoliatum</i>)
Miterwort	(<i>Mitella diphylla</i>)
Alumroot	(<i>Heuchera americana</i>)

Look before you leap to pull them out!

Indiana Native Plant and Wildflower Society

MEMBERSHIP APPLICATION

Yes! I've have been waiting for this exciting opportunity! Enclosed is a check for the following:

☐ Student \$10 ☐ Family \$25 ☐ Sponsor \$250
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Dues paid after September 1 are applied to the following fiscal year.

Gifts Do Help

Your gift of any amount will be most appreciated. Donations above student, individual and family membership dues are tax-deductible to the extent provided by law. Gifts will be used to help further the programs and purposes of INPAWS, such as publishing a newsletter and providing services related to monthly programs.

Membership Categories:

Student: For full-time students under the age of 22. Benefits include meeting notices, one vote on organizational issues, newsletter, membership directory.
Individual: Benefits are the same as for student.
Family: Includes head(s) of household and dependents. Benefits include meeting notices, newsletter, membership directory, and two votes on organizational issues.
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☐ Speakers Bureau
☐ Other

Please complete this form and mail, along with your check made payable to:

Indiana Native Plant and Wildflower Society; or INPAWS

c/o Ruth Ann Ingraham, 6106 Kingsley Drive, Indianapolis, IN 46220.

Register soon for the overnight trip to the Indiana Dunes, August 3 and 4. See pages 5 and 8.

Native Plant and Wildflower Society

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Indianapolis, IN 46220

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